American Farmer,

AND SPIRIT OF THE AGRICULTURAL JOURNALS OF THE DAY!

"O Fortunatos nimium sua si bona norint
"Agricolas." . . . . *Virg.*

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Notes to the American Farmer—by I. S. S.

Cholic in Horses—I was told lately by a gentleman of P. George's, Mr. Carter, that a tea-cup full of spirits of turpentine would give instant relief to horses laboring under this disorder—He added that on one occasion all the *oxen* of two of his carts were *hoven*, that is, as you know, *suddenly swollen by the generation of gas in the stomach, from eating green food.* The overseer expected all would die, when Mr. C ordered a tea-cup full of spirits of turpentine, diffused in oil, to be given to each—The relief was in every case *instantaneous* and effectual, almost before he could have thought there was time to swallow—Such facts should always be communicated for wide diffusion and preservation, in agricultural journals. I. S. S.

Ice—By two persons lately I have been told that in filling an ice house, the better way is to pack it away closely, *without pounding and ramming*, as is generally done. The idea is, that by pounding and ramming, the air is more effectually excluded; that the ice, in that case, becomes as it were, a compact solid mass, and that the house will hold more and the ice last better; but as before stated, I have been twice lately told, that experience teaches the contrary, and I think you will find a paper on the structure and filling of ice houses, by P. E. Thomas, a man of nice observation and practice, wherein if I remember rightly, he recommends the *close packing* of ice —like bricks in a kiln, without breaking and pounding it. This is the season to give hints on the subject.

Be not afraid of republishing old things, that are good —remember that your subscribers now, are not generally the subscribers *twenty years ago*—The fact is, we are too apt to be running after new things. I. I. S.

Guano—If you will turn back many years since to the volumes of the old American Farmer, you will find I think that Com. Ridgely, sent home, at that time, several barrels of this *new manure*, about which such a stir is *now making* in England, called *Guano*, being the dung of birds from the Islands on the coast of Peru—yet were we to believe the papers one might suppose the substance was never heard of, out of South America, *until now.*

You will find in these early volumes of the Farmer, the most earnest exhortation to the Secretary of the Navy to get provision made for having all sorts of curious and useful things, animals, birds, seeds and plants, brought home from abroad, and to have libraries of books on Botany and Natural History provided for all the public ships. A list of all the animals, plants, seeds, fowls, &c. that *were years ago brought home by our elder officers of the Navy, would strike your readers with surprise.*

I remember when the postage on my letters, distributing seeds brought home by officers and in my agricultural and horticultural correspondence, ascertained by actual calculation, would have been more than $3000 a year, and when the postage accruing and collected on my publications amounted to more than my salary in an office that gave the franking privilege—not for these publications, but on the correspondence by which they were sustained in interest and in profit. I. S. S.

The Fork Plow—Distemper in Dogs—Kindness to Animals, &c.—With thanks to Mr. Shriver for his description of the fork, attached to his plow, which I have no doubt is a valuable implement, but of which I had never heard before—is it not a misprint to say that it is attached to the plow by means of *ten* screws; ought it not to be *two*?* The drawing, however, is so plain, in connection with his description that any plow-smith can make one. Those who know any thing of country life and habits; know that on hearing or reading of a new labor saving contrivance, the next question that every one puts to himself is —"*I wonder what it costs?* Now will you get my old friend Chenoweth, the veteran agricultural implement maker, and a most upright and worthy man, to say for what price he can afford to make these fork plows, reserving to himself a living profit! which, by the bye, buyers are apt to forget that every vender has a right to do. It would be well for all manufacturers to have one or two ready for exhibition and sale; and for you, in your paper, to let your subscribers know *the price of them*—It strikes me that, as Mr. Shriver says, they are well adapted for "*laying corn by*," as they must leave the surface comparatively smooth—but do they leave it smoother than the cultitor? and do they not cut the roots more, by going deeper? You can never be too particular in giving *the cost of things.* In the next paragraph you speak of "boluses of castile soap"—but don't say *how much!** How big was the piece of chalk. Excuse me for saying, that although there may be no danger of an over-dose of an ingredient so simple, still it is always much more satisfactory to say *how much*: I have found common soap to answer in most cases, but your additional precaution and prescription are useful and very valuable to be known. I have often thought that in settling his final account, the worst sort of sinners would obtain large credits for *kindness to speechless animals!* I thank my nature, or my education, or both, that I can charge myself with no cruelty to dumb beasts, except pressing a good horse too hard in the chase—especially when the dogs are "*running to kill*"! and he that can hold back in such a case, must be made of "sterner stuff" than I am.

The last case in which I had occasion to test the efficacy of *salt* as a cure for *canine distemper* was this—The young son of a next door neighbor had a promising pointer pup, which disturbed our house exceedingly by his yelping every night. I told the young gentleman in a quaint way—"It won't be long before your dog will have the distemper, and will you know how to save his life?"—No—will you tell me, sir, if you please? Yes, on *one condition*—that you do not allow him to disturb our whole family every night, which we think unreasonable and unneighborly—prevent that, and when you see him begin to run at the eyes and cough, come to me. Soon after he came and putting on gloves so as to press his *lips* over and inside of his teeth, he readily opened his mouth, when I made the lad chuck down a table spoonful of salt, to the roof of his tongue—Then closing his mouth until he swallowed it—he soon vomited, and this being once repeated next day, the pup got well. Our bargain was ratified—the dog cured. and the boy instructed with an item of information of more value, than he ever got in one day, within the four walls of a school house. The whole world is a school house, every sense a channel for conveyance of knowledge, and every object in nature an instructor. I. S. S.

P. S. In a late—perhaps the last number of the Spirit of the Times, is a recipe for curing foundered horses—it ought to be preserved in the Farmer. It appears to be perfectly authentic, rational and valuable. I recommend you by all means to insert it.

N. B. *To cook Dun Fish—or Codfish salted.*—I shall never forget this dish as his friends met with it at the elegant table of the late Commodore Chauncy. I have seen a very select party of eight gentlemen at his table, abounding in choice things, make their dinner exclusively on *dun fish.* The Commodore said it should swim three times —first in its native element, then in butter, and then in wine—and every one knows that his *Xeres wine* was not to be beat in the world. Not remembering whether I caused Mrs. C.'s recipe to be published in the Farmer, I send you one now, from an accomplished lady in Boston, from whom I received it. You know it is a principle with me, that good things, with very few exceptions, should be in common, as nearly as possible.

"Salt fish (meaning cod fish) should be put in a deep plate, with just water enough to cover it, the night before you intend to cook it—take it from that water before cooking and wipe it clean.

It should not be boiled an instant; boiling renders it hard. It should be in scalding hot water two or three hours. The less water is used, and the more fish is cooked at once, the better.

It may then be served up on a napkin and each one may take his portion and mix for himself with eggs and butter, or it may be picked fine from the bones and mixed with Irish potatoe and butter. No dish is lighter or more digestible—not even tripe." I. S. S.

Stevenson's Garden, near New Windsor,
Carroll Co. Md., Dec. 21, 1842.

To the Editor of the American Farmer.

Sir:—In the American Farmer of the 7th inst., I find several enquiries propounded to me, in marginal notes attached to a letter written by me to Mr. Skinner in reply to his, requesting me to detail to him the mode I pursued in cultivating my ground by which I produced 17½ bbls. or 87½ bushels of corn to the acre.

I take pleasure in answering the enquiries. *My ground was stirred with the barshare plough. I do run the harrow literally over the corn.* Before doing so, I raise a row of the centre teeth, or take them out, allowing that part of the harrow from which the teeth have been taken, to pass over the hills, this process fills the furrows, and leaves the ground level; and the absence of the teeth protects the corn from being pulled up or broken off.

The shovel plough penetrates the ground as deep as the first, or October ploughing. And if the shovel is properly constructed, it will penetrate deeper if the ground be mellow. The shovels I use are from 12 to 15 inches in length, and are well drawn to a point. I consider that I am greatly indebted to the depth I work the ground with my shovel ploughs for my large yields of corn, together with the distance I observe in planting for the extraordinasize of the ear, many of which measure from 12 to 14 inches in length.

I believe I have answered all the enquiries propounded to me, and I hope to the satisfaction of the querist. To those who like myself, are in the habit of holding their own plough, my answers will have the appearance of *going into very small matters*, such I do not expect to edify, but possibly it may be profitable to that class of farmers, who figure largest on paper, and those who think the whole secret of producing is concentrated in the size of their *Bull calf*, or the length of the ancestral pedigree of their *Boar pig*, and that the products of their fields are altogether the result of chance.

Before I close, I beg leave to correct an error, typographical I suppose, in which you say "Mr. Slingluff's crop of 85½ bushels of corn to the acre," as the caption of my letter; It should have been 87½ bushels, which is the largest yield I have yet seen reported in Maryland.

Very respectfully, yours,

Isaac Slingluff.

*It was printed according to copy; through a slip of the pen of the writer he wrote *ten* instead of *two*, as he has since informed us.

† The fourth of an ounce is the proper dose.

From the Quarterly Journal of Agriculture.

On the Application of the principles of Vegetable Physiology and Chemistry to Agriculture.

By Henry R. Madden, M. D.

Liming.

To enter minutely into all the effects produced by the application of lime to soil, would require a separate essay. We will not attempt, therefore any thing beyond a mere enumeration of the effects, and thence form a correct judgment of the cases to which it is applicable. Lime has three distinct great effects, in addition to several minor ones; 1st, it greatly hastens the decomposition of the organic matter in the soil, and in doing so renders it much more valuable to the crops; 2d, it alters the texture of the soil to a certain extent, proportioned to the quantity applied; 3rd, it adds, of course, calcareous matter to the soil. From these considerations, it follows that lime is applicable to all cases where there is an accumulation of undecomposed vegetable matter, as in the poor old pasture, heath, peat-moss, moorland, and the like. But, on the other hand, lime is contra-indicated in two classes of soils, viz., in those which are poor, from the want of organic matter, and not from the want of care, as very poor moorland, thin shifting sands, &c.; and also in soils abounding naturally in chalk. A careful examination of the cases should always be made prior to the application of lime, in order to ascertain whether it be judicious or otherwise, and likewise to determine the quantity likely to prove most useful; this should be regulated by the quantity of organic matter and of chalk in the soil, for the proportion of lime requisite will increase with the *increase* of the organic matter and the *decrease* of the chalk. The more organic matter, the more lime; the more chalk, the less lime will be requisite to produce the desired effect. It must, moreover, be remembered that, except in instances where there is a deficiency of calcareous matter in the soil, lime does not add directly to the fertility of the soil, but only increases it, by calling into activity what existed there before in a useless condition.

It follows, therefore, that, however great the benefits of liming may be, it really exhausts the soil, and hence should not be *repeated* without great caution; indeed, we are convinced that few lands, except perhaps peaty soil, will profitably bear a repetition of severe liming. The practical advantage of being acquainted with the foregoing facts is obvious; without it, indeed, liming becomes a most hazardous operation, particularly to the landlord's interest; for many lands will yield, for a year or two, heavier crops, after a good liming, but afterwards the productive powers fall as much below the natural standard as they had been artificially raised above it. This observation, of course, applies only to such soils as either ought not to have been limed at all, or which, having been already subjected to the process, cannot bear its repetition without an ultimate loss.

In other soils, namely, those which are abundantly provided with undecayed vegetable matter, the good effected by the lime, in improving the texture, clearing the soil, and adding considerably to the impalpable matter, is far too great to be overbalanced by the diminution of the *absolute quantity* of organic matter in the soil, which is the necessary result of the increased rapidity of decomposition induced by its action.

In the application of lime to a soil, two things require especial attention, viz.—1st, the condition of the lime; and 2d, its chemical constitution. 1st, A knowledge of the condition of the lime at the time of its application is most essential, because according to this depends in a great degree whether it be very beneficial or nearly effete. The utility of lime in effecting the decomposition of organic matter depends upon a chemical change which occurs during its transformation from *burnt* or *quick-lime* into *mild-lime* or *chalk*; it is necessary, therefore, that the lime and organic matter be in contact during the whole progress of this change. This may be effected in one of two ways; either shake the lime rapidly, spread it over the soil, and immediately afterwards plough it in; or make the lime into compost heaps, by digging a sufficient quantity of the surface soil to mix with the lime; turn it at intervals, mix the two thoroughly together, and after a few months spread the mixture carefully over the field, and then, as in the former instance, plough it in. The selection between these two plans must be regulated entirely by the particular circumstances of the place, the best time for driving the lime, condition of the soil as regards the crops it may be under, &c. &c. 2nd, As regards its chemical constitution, it must be remembered that there frequently exist, associated with the calcareous matter, other mineral ingredients which may exert a most baneful influence upon vegetation; and it is obvious that this would destroy altogether the utility of the process, even were all the circumstances in other respects most favorable. This can be determined at once by chemical analysis; and as the constitution of the rock seldom varies considerably in one deposit, a single analysis at the quarry would generally be sufficient for the whole time during which it was worked.

(14.) *Paring and Burning.*—The immediate effects of this process are fourfold. 1st, It destroys a large quantity of organic matter. 2d, It alters entirely the texture of the portion to which the heat is directly applied. 3d, It reduces to a caustic state the alkalies and alkaline earths contained in the burnt portion; and 4th, By means of these alkalies it acts upon the remaining organic matter of the soil exactly as lime does. To arrive at a just conclusion as to the true economical merits of this process, we must bear all these four facts in mind. 1st, As it destroys a large quantity of organic matter, it of course exhausts the soil to the extent of the quantity destroyed; this is, therefore, in one respect, a disadvantage. 2nd, As it completely alters the texture of the portion burnt, viz., by giving to the clay the feeling and texture of sand, we must consider how far this would be advantageous to the soil. 3rd and 4th, As it produces alkali which acts upon the remaining organic matter of the soil, and thus further detracts from its supply of organic matter, it becomes of importance to decide whether the soil will bear the deterioration without a real loss of value. A careful comparison of the whole question leads to the following conclusions, viz:—that with the exception of the alteration of texture above alluded to, paring and burning act in a similar manner to (though in a much greater degree than) lime, and that economically considered, liming, when applicable, is in almost every instance preferable, because the same is effected with less loss. We should conclude, therefore, practically, 1st, that where lime is expensive, and the soil much injured by excess of undecayed woody fibre, paring and burning may be preferred. 2nd, Where the soil is a stiff clay, containing a sufficiency of calcareous matter naturally to supply the demand of the crops, paring and burning would be the most advantageons. 3rd, Upon sandy soil, not much overgrown with useless woody weeds, liming is far the best; or if the soil be already abundantly supplied with lime, then neither should be applied, but in their places wood ashes or kelp.

Thus much for the treatment of soil. We shall next examine,

II. *The effects of vegetation in soil*, or the various methods in which vegetation has been proved to affect the soil. Science has been enabled to explain satisfactorily the causes of the following well ascertained facts:—

5th, Concerning soil in its natural state:—

(15.) Uncultivated soil, however rich, becomes gradually less and less fertile until it has attained the condition either of moor or marsh.

(16.) Uncultivated soil retains its luxuriance for the greatest length of time, when covered with forest trees and other large vegetables.

(17.) Land not disturbed by the plough produces successive crops of different kinds; or, in other words, a sort of natural rotation is, to a certain extent, maintained.

(18.) On uncultivated land when any species of plant disappears, its place is supplied by one of less value as an article of food, and thus the richest pasture comes in time to produce only the coarsest and most worthless species of grass.

(19.) Although the natural produce of uncultivated soil thus uniformly decreases in value, the soil itself becomes progressively richer; so that when brought under the plough it will yield much larger returns than could be expected from it spontaneous produce.

6th, Concerning regularly cultivated soil:—

(20.) Soil continually ploughed yields its nourishment in much greater abundance, and with greater ease, to plants growing upon its surface.

(21.) The facility with which the productive power of *well* cultivated land is diminished, depends on its organized matter being more easily converted into compounds soluble in air and water.

(22) The decrease of fertility in *carelessly* cultivated soil depends in addition to the above circumstance, upon a diminution in the proportion of its impalpable matter.

(23.) Cultivated land, when properly taken care of, becomes gradually richer and richer, notwithstanding the increased quantity of produce annually removed from it.

(24.) If the same plant be cultivatad for several years successively upon the same spot, the soil much more rapidly decreases in fertility than when a variety is kept up.

(25.) Some of the most valuable mineral constituents of soil decreases in greater rapidity in proportion to the greater care bestowed upon its cultivation, altogether independent of the portions removed by the crops.

Let us now proceed to the explanation of these facts.

(15.) Uncultivated land, however rich, becomes gradually less and less fertile, until it has attained the condition of moor or marsh.—This, and several other of the facts related in the present section, are capable of being explained by reference to the important functions of azote in the vegetable economy, concerning which much has been ascertained during the last few years, and from which several general facts may be deduced, although, it must be confessed, we are yet very much in the dark respecting the fundamental or governing principles that regulate the facts in question.

Careful observation has proved the two following very important circumstances, viz., 1st, That the more azote any plant contains, the more dependent it is upon the soil for its support. 2nd, That the value of any plant for food is, *cæteris paribus*, directly dependent upon its quantity of azote. Now, if we trace the history of any portion of soil, we shall find that it has gone through two distinct changes, which are exactly the reverse of each other. Let us suppose, for example, that several seeds of various kinds are scattered on the surface of a rock: those which contain much nitrogen will shoot up with the others, but long before arriving at perfection will wither and die for want of proper nourishment, so soon as they have exhausted the supply of azote originally contained in the seed; those seeds, on the contrary, which contain but little of this elementary principle are so independent of the soil, that they can attain a certain degree of perfection, and produce a few seeds even upon the surface of a barren rock.

When autumn is passed, vegetation for the year ceases, and all the plants wither, and during their decomposition become mingled with a certain proportion of the constituents of the rock, which has become gradually disintegrated by the joint influence of their roots, and the moisture which they have retained about them. Thus a soil is produced. During the next spring the seeds remaining in the ground spring up, and more plentifully supplied with nourishment, a more luxurant crop is produced. This continues to occur from year to year; and as there are several natural sources from which soil derives its nitrogen, independent of the vegetable matter decaying beneath its surface, as, for instance, from the rain which falls upon it, the soil becomes more and more capable of producing those plants containing greater quantities of azote, or in other words a tolerable rich pasture is the result. But no sooner has this occurred than a directly opposite series of changes commences; the soil has by this time become covered with a mass of root fibres, which mat it together and prevent the free circulation of air in its interstices, and hence decomposition does not occur with sufficient rapidity to afford a supply of nourishment for highly azotised plants; these, therefore, die off, and as the evil increases annually, so the fertility of the soil decreases, until its surface is covered with those plants which are so far independent of the soil, that they can arrive at perfection although it continue in the state just described; or, in other words, the soil has now become moor or marsh according to its condition as respects water, for the only difference between the two is, that their herbage is regulated by the amount of dryness or moisture, those plants which require an abundant supply of water thriving so luxuriantly in the latter as to keep under all other kinds of vegetation.

The practical advantage of an acquaintance with the above fact is obvious, when we consider that upon a correct application of it must depend all the rational means of improving waste land, for as the fault lies in the condition of the soil itself, no surface application can be of permanent advantage.

(16.) Uncultivated soil retains its luxuriance for the greatest length of time when covered with forest trees and other large vegetables.

This also depends upon an analogous cause. The proportion of nitrogen in woods is very much less than in any of the herbaceous plants employed as food, and hence it follows that they are more independant of the soil as

far as regards organic matter. But in addition to this, large trees act upon a much larger portion of the soil; for whereas, in pasture land, few, if any, root-fibres extend more than six or eight inches below the surface; in forests of long standing it is almost impossible to state accurately the extent to which their roots penetrate, for if the subsoil be porous, they will travel to great distances in every direction. Again, the long duration of each individual plant is a great cause of the fertility being preserved, because as the root-fibres are continually lengthening as their extremities, the tree is constantly coming in contact with new portions of soil; whereas if one dies, and is replaced by another at short intervals, the new roots have to traverse the same spots which have been visited, and partially exhausted, by a former generation. These three reasons are abundantly sufficient to account for the luxuriance of natural forests being preserved for so much greater a period than that of natural meadows.

(17.) Land not disturbed by the plough produces successive crops of different kinds, or, in other words, a kind of natural rotation is, to a certain extent, maintained. This is a most interesting fact; and although as yet our acquaintance with it is but limited, still the examples deduced to prove its truth are well worthy of attention, and should lead us to examine more minutely into the herbage of natural meadows to astertain the extent of this change of crop.—The most decided instance which has hitherto been published, is the following, which is related in M. Liebig's valuable work on the application of chemistry to agriculture. The author observes, that barren spots gradually appear in fields bearing only one kind of plants, but if "such a field be observed for several years, it is seen that the barren spots are again covered with vegetation, whilst new spots becomes bare and apparently unfruitful, and so on alternately."

But if we examine a portion of ground which bears several different species of plants, we shall find that some are continually disappearing, and other new ones supplying their places, or some of those already existing growing up in far greater abundance. Thus, for instance, in all natural meadows, white clover and the finer kinds of grasses disappear, and are replaced by those of coarser growth; but if anything occurs to prevent these from completely overgrowing the soil, the clover and other grasses will reappear after a short interval, again to be lost sight of in a few years. The knowledge of this is valuable, as proving to us that the necessity for a rotation of crops does not depend upon the plants being in a somewhat unnatural state from the effects of cultivation, but that it is requisite for all plants even in a state of nature, except perhaps those comparatively useless grasses which constitute the bulk of the vegetation in all neglected spots. It is very desirable that more extended observations should be made on this point, for an acquaintance with the order in which plants succeed each other naturally would assist greatly in the construction of a more perfect rotation than any hitherto suggested. In the meanwile we think enough has been learned to prove the truth of the statement, but by no means sufficient to enable us to draw any practical conclusions therefrom.

(18.) On cultivated land, when one species of plant disappears, its place is supplied by one of less value as an article of food, and thus the richest pasture comes in time to bear only the coarsest and most useless species of grass. This may be considered almost as corollary upon the above, as it evidently depends upon precisely the same cause.

When a flowering plant is growing in a state of nature, it annually sheds its seeds in the immediate neighborhood, and consequently (in the case of an annual) its place is filled the next year by all the produce of the seed, and the result is, that in a few years a large space of ground is occupied by the succeeding generations of one original plant; or should it be a perennial, much the same occurs, with the exception of the old plant continuing and checking the luxuriance of those seeds which fall on the spots already pre-occupied.

But when the soil becomes exhausted of the food best suited to the growth of this plant, it matters not how many seed may be shed upon it; they will all either die or remain inactive, until stimulated by the presence of their favorite nourishment. When, however, soil is thus unfitted for the growth of one plant, it by no means follows that it is equally so for all; and, accordingly, some other seed which has accidentally fallen on the spot springs up, flowers, produces seed, and the whole series of phenomena again takes place.—Now, the following circumstance connected with the influence of azote upon vegetation regulates the order in which the various herbs and grasses succeed each other. The more azote a plant contains, the more dependent it is upon the condition of the soil, and at the same time the more valuable it is for food.

These, therefore, are the first occupants of a luxuriant plot of ground. As the fertility of the soil diminishes, these gradually disappear, and are replaced by others less dependent upon the soil; or, in other words, containing less azote, and hence less valuable as food, and so forth, until at last the ground produces nothing beyond the coarse herbage of the moor or marsh.

(19.) Although the natural produce of uncultivated soil thus uniformly decreases in value, the soil itself becomes progressively richer, so that when brought under the plough it will yield much larger returns than could be expected from its spontaneous produce. This statement may appear somewhat strange to those who have attended solely to the theory of agriculture; while to the practical farmer, however inexplicable it may be, still he is too well acquainted with the facts to doubt for one instant its truth. Careful investigation removes the difficulty at once. The chief reason why the produce of uncultivated soil becomes continually less luxuriant, depends upon the soil remaining undisturbed, and in consequence of this becoming consolidated to such a degree that it assumes, for the time, some of the conditions of stiff clay, being nearly impervious to air, and losing the benefit of much of its impalpable matter by its becoming agglutinated. The result of this is, that the decomposition of the organic matter of the soil either ceases altogether or progresses at an extremely low rate. But plants obtain the elements of which their organic matter is composed from the air as well as the soil; the herbage, therefore, of land, in the condition just described, increases chiefly at the expense of the atmospheric supply of nourishment, and thus when it decays a *new* quantity of organic matter is added to the soil, and from the slowness of decomposition occurring therein, it gradually accumulates from year to year, so that when brought into cultivation, such soil will be found possessed of a much greater quantity of organic matter than it originally contained. A knowledge of this fact is of course useful, as it supplies us with a method of increasing the organic matter of soil, without the expense of adding manure to it; and although the crops produced in the mean tine are undoubtedly inferior, still there are many situations in which this plan is by far the most economical. When, therefore, soil is losing its value from over-cropping, nothing more is necessary to reclaim such land than to lay it down in grass for a few years; and as the grass will of course be pastured by stock, the decrease of produce which generally occurs from year to year is fully compensated for by the droppings of the cattle, which increase the fertility of the soil so rapidly that the desired effect is in this manner produced some years sooner than could otherwise be the case.

8th, Concerning regularly cultivated soil:—

(20.) Soil continually ploughed yields its nourishment in much greater abundance, and with greater ease to plants growing upon its surface.

This is one of the chief causes of the greater luxuriance of well-farmed land, as compared to that of the same texture, and under the same climate, which is carelessly attended to. There are two things which constitute the chief business of every good farmer; 1st, he must keep his soil in the condition in which its natural fertilizing powers are brought most fully and freely into exercise; and 2nd, he must as far as possible increase their power. Now, continually repeated ploughing and harrowing has this effect, by producing, as already shewn (9) the greatest amount of impalpable matter, and likewise insuring the free circulation of air; and we have likewise shewn (7) that the greater porosity of a soil, the greater the rapidity of decomposition of organic matter. Now, the practical benefit of being acquainted with this circumstance is, that the farmer may be led to bear in mind that the processes employed by him to increase his crops, have, of necessity the effect of impoverishing his soil with greater rapidity than would have been the case had the land remained unemployed; and consequently the more he removes annually, in the form of crop, the more must he add in the shape of manure.

(21.) The facility with which the productive power of *well* cultivated land is diminished, depends upon the fact of its organic matter being more easily converted into compounds soluble in air and water. This has been already explained under (7) and (20), and therefore requires no further observation here.

(22.) The decrease of fertility in *carelessly* cultivated land, depends, in addition to the above circumstance, upon a diminution in the proportion of its impalpable matter. This is owing to a want of sufficient care in working the land so as to effect its pulverization, and likewise to allowing the old roots to remain in the soil, and thus permitting it to become foul. When a soil is foul, the old roots bind large portions of the impalpable matter together, producing, as has been already explained, masses which are of as little value as if they were stones, until something has been done to break them down. Thorough cleaning of the land by ploughing, harrowing, and grubbing, is all that is required in this case to restore the soil to its original fertility, but without this no quantity of manure will enable it to bring its full powers into action.

(23) Cultivated land, when *properly taken care of*, becomes gradually richer, notwithstanding the increased quantity of produce annually removed from it. This depends upon the same general principle as the gradually increasing richness of uncultivated land, viz., the quantity of organic matter annually produced by elements obtained from the atmosphere, so that every vegetating field is continually engaged in bringing down and depositing in the soil what was floating about in the form of gas. A number of calculations have been made to prove that the above fact demonstrates, that soil yields no organic matter whatever to plants; but all these are founded upon a basis altogether erroneous. They state, what is no doubt true, that as part of the produce is annually exported from the farm, and a still greater part consumed and converted into beef and mutton, the quantity of organic matter added to soil can never equal that removed from it, unless manure be imported; and therefore, if cultivated soil becomes richer in organic matter, it proves that it has yielded *nothing* of this to the crops. There is obviously, however, a mistake here, because all it proves is, that the manure and the atmospheric supply *together*, equal more than the whole weight of the crop; which the most accurate calculations will prove to be the case.

(24.) If the same plant be cultivated for several years successively upon the same spot, the soil much more rapidly decreases in fertility than when a variety is kept up. In treating of the kind of natural rotation which occurs upon uncultivated land, we stated that soil became unfitted for a continuance of the same plant, long before it was incapable of bearing others. The exact cause of this is still somewhat involved in obscurity, owing to the imperfect state of our knowledge respecting the precise form in which plants receive their nourishment; nevertheless, as far as our knowledge extends at present, we may state, that the chief reason of the rapid decrease of fertility of soil continually cropped with the same grain, appears to be, that as different plants require their food in different conditions, while the same plant always requires the same elementary substances, both organic and inorganic, to be supplied to it; so, if the same plant is continually cultivated upon one spot of ground, too great a demand is made for some particular ingredient, and the crop begins to fail as soon as this becomes deficient in quantity.

If, on the contrary, a judiciously selected variety be kept up, the result is, that each succeeding crop makes use of that which the former did not require, and thus all the various nutritive principles are equally turned to good account.

(25.) Some of the most valuable mineral constitues of soil decrease in greater rapidity in proportion to a greater care bestowed upon its cultivation, altogether independent of the proportions removed by the crops. It is of considerable importance that this fact should be borne in mind. We think that far too little attention is in general paid to the *natural tax* (if we may be allowed the expression) which is laid upon all cultivated land. What we refer to is, that the operations performed on soil to enable it to produce heavier crops, have at the same time the effect of rendering the soil more easily detoriated by natural agents; so that the same means which enable the plants to obtain with greater ease a larger supply of nourishment, increase also the continual waste which occcurs by the escape of valuable matter in solution in air and moisture. The particular substances referred to under this head are the alkalies and alkaline earth, whose great value is soil is quite undeniable.

Now, we have already seen that ploughing and harrowing have effects, 1st, of loosening the texture of the soil; and 2dly, of pulverizing it. When rain-water falls

upon soil, it always contains a considerable quantity of carbonic acid dissolved in it, which acid has the power of dissolving a certain definite quantity of lime; now, the looser the texture of the soil, the more readily the rain flows through it; and hence it follows that the more a soil is ploughed and harrowed, the greater will be the quantity of lime annually carried off by the rain-water which finds its way into the drains. Again, it is a beautiful provision of nature, for the purpose of preventing all soil from becoming soon barren owing to the waste of alkalies in it, that no alkali, however soluble in water when pure, can be dissolved in water, when associated with the various ingredients constituting rocks and stones, until these are reduced to impalpable powder; but when they assume this form the first rain that falls is sufficient to wash it away, unless it has entered into some chemical combination which is less easily dissolved. The result here, therefore, is precisely the same as above; the more you pulverise a soil, the more alkali will be annually removed by the rain-water.

The practical advantage of knowing this is, that it will serve to remind the farmer of the waste of valuable material which is constantly occurring in his soil, and hence prove to him the necessity of renewing these from time to time, should his crops give indications of a deficiency.

The Hessian Fly.

A few years ago I commenced the business of farming, more for the purpose of a pleasant relaxation from professional life, than with the hope of gain; and my fondness for the occupation, has led me into many experiments and much close observation of things, pertaining to the subject of agriculture; and I do not know but it may lead me to trouble you and your readers occasionally with the result of them. If I suppose I could add any thing to that spirit of enterprise, which you and others seem to have awakened among the farmers of this day, or suggest an idea which a practical farmer might turn to a valuable account, I should feel gratified. In my pursuit of information on this subject, whenever I have found an opinion with regard to a fact,—a cause, or an effect, to be generally entertained by farmers whose attention has been called to the subject, I look upon it as entitled to respectful consideration, even if it does not at once command entire belief; it is worth a book of philosophical theory.

As you know, this is a wheat growing district, and our farmers may be supposed to know something of whatever concerns the cultivation of that grain. They entertain an opinion with regard to the Hessian Fly and its appearance, which is natural, and which my own observation has convinced me is in accordance with the truth. It is a big-bellied insect, which makes its appearance in the fall, when the mildness of the weather will admit, especially at that season called *Indian summer*, and its coming is easily discovered; when it alights upon the ground, it divests itself of its wings and assumes the appearance of a large black ant, and from its hurried manner, seems to be seeking a place of deposit for its egg; this it soon finds, either in the crevices of the ground, under a clod, or in the wheat plant; and not always in the latter as is sometimes supposed. After the egg is deposited, the insect seeks shelter for itself in the ground, where it remains during the winter; and either it or its progeny appears again in the spring, to go through the same work of destruction. The opinion is entertained by some, that the egg deposited in the fall, remains to be hatched in the spring,—but not so: nature makes better provision for her creatures, than to cause the egg to be laid in the fall, exposed to the frosts of winter, to be hatched in the spring. The egg laid in the fall does its injury to the grain, then or not at all; its effect is then perceptible; and it is the re-appearance of the fly in the spring which repeats the evil. My observation has convinced me, that this is the Hessian Fly; and that there is a most infallible remedy for its destruction—as certain as it is simple—the use of the Roller. A very little care and observation, at that season of the year when the farmer expects its approach, will discover its presence; and then is the time, whether it be spring or fall, to roll the wheat-fields: the weight of the roller not only destroys the insect itself, whose size and shape prevent escape, but it destroyes also the tender egg, whether deposited in the wheat or elsewhere. I have used the roller for six years, and I have never seen the effect of fly in my wheat; while crops around me have been partially destroyed by it. W.

Carlisle, 30th of Oct. 1842. [*Farmers' Cabinet.*

THE AMERICAN FARMER.

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Liming—Paring and Burning—Rotation of Crops.

We conclude in to-day's sheet a valuable paper, from page 236, by *Dr. Madden*, "*on the application of the principles of Vegetable Physiology and Chemistry to Agriculture.*" The subjects embraced in this part of his essay, is *Liming*, *Paring and Burning*, and the *Rotation of Crops*. The whole of the production of Dr. Madden is distinguished by great grasp of thought, a mastery of the subjects discussed by him, and a common sense way of communicating his thoughts to his readers. But altho' we thus highly appreciate the manner and the matter of the discourse, we think some few observations are called for, with regard to the first branch of it, in order to render the effect of liming more fully understood. The proposition which Dr. Madden lays down, with regard to the *effects* of lime,—when its use is indicated, and when not—when it will be serviceable, and when its application would be of doubtful utility, are philosophically true. We however think that he apprehends too much danger from *repeated applications*, unless indeed such applications should be in large quantities; for if there be plenty of undecomposed or insoluble vegetable matter in the soil, no fear need be entertained from repeated applications of lime, or marl, in moderate quantities, say from 40 or 50 bushels of the former, and from 100 to 200 of the latter, at each commencement of a rotation of crops, if applied to a field after a clover-ley, or grass-sward shall have been turned under. One of the properties of lime is, to give activity and life to inert vegetable matters—to convert insoluble into soluble substances, or in other words, to transform such substances into the food of plants, which without its aid would have remained unavailable for the purposes of vegetation. If it is the performance of this office which the Dr. means when he says it "exhausts the soil," then is he correct; but then as it has provided this inert dead matter in a form to be taken up by, and contribute to the growth of the plants, we hardly think it fair to charge it with the character of an exhauster, inasmuch as the food it thus *cooks*, if we may use the term, could not otherwise have been consumed by the crops—and it would be equally unfair, to expect, that such nutritive matter should be in the soil, and in the plant at one and the same time. The exhaustion then, consists in rendering matter eatable by the plants, which would not otherwise have been so. The obvious conclusion at which our mind arrives upon this subject, is this—that, as lime has the power to hasten the decomposition of organic matter in the soil, and thus more rapidly provide it for the consumption of growing crops, that it should be the business of a judicious husbandman to provide, periodically, additional matter to be acted upon by the lime—this may be done in either of three ways, by ploughing in green crops, by ploughing in clover or grass, or by timely applications of coarse barn-yard manure, or composts, in which there are considerable portions of undecomposed vegetable matter. To expect lime to prepare the matters in the soil, give them up to the growing crops to feed upon, and retain them for future use, would be as unreasonable as were the lamentations of the urchin, who having eaten his cake, cried because he had it not. The danger from repeated liming, then, we conceive to be reduced to this, where it is applied to soils wherein there is nothing for it to act upon. We are favorable to small applications of lime, and believe, that in poor ground, destitute of, or but partially supplied with, vegetable matter, that more than 25 bushels to the acre should not be applied at one time, to be repeated at the end of a course of rotation, upon a ley or sward, after being ploughed in; nor would we apply more than 50 upon strong ground, a like quantity to be repeated as above named. One advantage resulting from such applications, is the saving of money, in the first outlay; and as only a certain portion of lime, and that a small one, can be dissolved by each succeeding rain, there is no necessity for making extravagant outlays in the beginning of a course of improvement, necessity as well as economy both indicating a contrary policy.

The views of Dr. Madden upon the principles and philosophy of a rotation of crops, are as beautiful as they are enlightened and true, and we take especial pleasure in commending them to the attention of our readers.

The Law of Trespass and Felony in Maryland.

In our monthly detail of Work on the Farm for December, we had this paragraph:

"*Corn.*—We take it for granted, that you will have gathered and housed your corn before this shall have reached your eye; but if in this conjecture we may have erred, let us advise you to pull it with all possible despatch; haul it to your crib, have it husked and put under lock and key with the least delay, as the *longer* it remains in the field, the *shorter* will your crop prove. There are other animals besides the beasts of the field, who *trespass* upon the cornfield and appropriate to themselves that for which they had never toiled, and who eat the bread which had been gained by the sweat of another's brow—and what, if you should catch them in the act of *taking*, can you do? It is no *felony*—no *theft*—but a mere trespass, though they were to deprive you of half your crop, provided they found it on the stalks standing in the field, and pulled and carried it away without leaving your premises previous to carting or wagoning of it off. This is the *law* by which the interests of corn planters are protected, but so far from its being *justice*, it is an incitement to villainy."

At the time we penned it, we were not aware that the General Assembly of Maryland, at its session of 1837 and 1838, had passed an act upon the subject, making it felony to steal corn standing on the stalks in the field, and, indeed, such is the imperfect and circumscribed manner that the laws are published in this state, that it is no wonder the existence of this *law* had escaped our knowledge, and we doubt much whether a fiftieth part of our population know to this day, that the legislature had the moral courage to pass it. We have for the last twelve years been calling upon that body, to protect the agricultural and landed interests, by making it *felony* to *steal* the growing crops, or timber of proprietors and occupiers of farms, believing that the offence of taking such property was just as heinous, in a moral sense, just as injurious to its owners, as the taking any other description of property, whatsoever, from any other class of society. We are rejoiced, however, to find that even this much justice has been done; but deeply regret, that while the General Assembly had the subject before them, that they did not pass a *general Law*, one that would protect every species of a farmer's crops and timber, whether growing in the field, or gathered, or felled. By an old law, it has been felony for many years in this state, to steal *tobacco* in the field while growing, but up to the passage of the law subjoined to this article, the *stealing* of every other product of the farm, whether growing crops or wood, was only a *trespass*, provided the party taking away did not leave the premises after gathering or cutting down, to procure the means of its removal from the place. As the law now stands, it is felony to take and carry away with the felonious intent of converting the same to his, her, or their own use, either the corn or tobacco on the stalks, and such offences are punishable by imprisonment—but with these exceptions, in favor of these two products, the robbing a man of his unharvested crops, of the timber standing in his woods, the fruit from off the trees in his orchard, or the vegetables, shrubbery and flowers from his garden, is a mere *trespass*, not punishable as a criminal offence, and the only redress offered by law, is, an action of damages, which, so far from being a *redress* to the injured party, acts as an incentive to the perpetration of villainy by the depraved.

For the *discovery* that it is *felony* in Maryland, to steal corn while on the stalks, we are indebted to the Hon. *James Boyle* of Annapolis, an eminent member of that bar, who besides furnishing us with a copy of the law, informs us, that it has been acted upon by Grand Juries, but owing to the custom of giving such laws in charge to Juries, having got into *disuse* in several of the Judicial Districts, the annexed law is not generally known. We are much indebted to Mr. Boyle for his attention and politeness, and feel justified in returing him the thanks of the agricultural and landed interests, as well as our own, for, in this act, he has placed both them and ourself under many obligations.

As an act of justice, we call upon the press of this state to publish the following law—and we also call upon the entire farming interest, to memorialize the legislature at its approaching session, to pass a general law, so that every variety of agricultural property may be protected.

An act making certain acts Felony.

Be it enacted by the General Assembly of Maryland, that from and after the passage of this act, *the taking and carrying away of corn from the stalks, to the amount of a peck or more*, with a felonious intent to convert the same to his, her, or their own use, shall be deemed a felony, and every white person, or free negro, guilty of the same, upon conviction, shall be deemed guilty of felony, and be sentenced to a confinement in the Penitentiary for a term not less than two years, nor more than five years.

Chapt. 361, passed by Gen. Ass. of Md. Session 1837–8.

☞Communications from "C.", "D. S. C." and "Fair Play," are received, but unavoidably deferred till our next.

Cotton Planters look out!—By the arrival of the steamer Britannia at Boston London dates to the 3d are received, which announce the restoration of peace between the Chinese and British governments, the former agreeing to pay to the latter $21,000,000, and also ceding an island in the vicinity of Nankin, which city had been taken by the British arms. There was great rejoicing in England, and an improvement in trade there and on the continent has taken place, and an advance in the price of Cotton—The Baltimore American of yesterday, says—"It is said that several persons came from England to this country in the last steamer, with the intention of speculating in Cotton, and that they hurried for the South without delay."

WORK FOR JANUARY.

Before we attempt to direct your attention to those duties which should command your supervision during this month, permit us to salute you, in the singleness of our heart, with our best wishes that you may enjoy a happy New Year, and that you and yours may live to enjoy health, prosperity and unalloyed pleasure, through many revolving ones. Having thus tendered to you the compliments of the season, it shall be our duty now, to converse with you a few minutes upon matters of business.

As you are about to commence the labors of a new year, would it not be profitable to examine the arrangements which you made, during the past one, to carry on the operations of your farm? We think it would, and that, by a careful and candid review thereof, you may find many errors to correct, and many of your plans susceptible of improvement.

If you have not done so already, provide yourself with a book, in which note down all the operations of your farm: the manner and time of preparing your ground: the time of sowing and planting your seed: the time of its coming up, its appearance during its progress to maturity; time of maturing, as well as of harvesting, each and every product of your farm; the kind and quantity of manure used, per acre, on every crop to which you may apply it; note down the effect of the different kinds of manure you may use: at the close of each week, record therein the work you intend having done during the ensuing one—this is an important disposition of time, and if faithfully carried out, will lead to the best results, as it will make you master of your business, and enable you to have it completely under your control, instead of being its slave. Plans thus judiciously arranged, place it in the power of a man always to have the command of his own time, and to keep his hands busy without being hurried. Keep also a record of the weather. In making these suggestions, it is not to be presumed, that we could sketch out all you ought to do; we shall, therefore, close the subject, by advising you. to *open your journal*, and shall rely upon your making it a source at once of pleasure and of profit, to which in after years you may refer with feelings of pride. With these brief preparatory remarks, let us look about us and see what is to be done

On the Farm.

The man who has had no practical experience, would but too readily conclude, that at this season of frost and snow, when the earth may be said to be locked up, that the husbandman has little else to do than to enjoy himself in luxurious ease upon the fruits of his last year's labors—occupy his time in the interchange of elegant hospitality with his neighbors and friends—but he who makes such calculations of the farmer's life, bases them on foundations as fragile and unsubstantial, as are the hopes of those who waste their time in fruitless searches after the philosopher's stone. For though the agriculturist who adopts a judicious system of operations, can always command his hours or days of recreation, to devote to the offices of friendship, or of good neighborhood, still such are the continuous calls upon his time, that even in the midst of his devotions to the claims of social life, his mind must be engaged in the furtherance of the duties of his calling—and it may often happen, that, when the air is most keen and nipping—when the weather is the most inclement—that his services may be most imperiously required. Thus situated, the mind of the skilful husbandman is always awake—ever on the alert—to turn the passing events of the season to the best account. But to such, there is this consoling reflection, that though it is in the nature of his vocation, to press him *onward*, such is the character of the excitement which it gives rise to, that his labors are so animated by the hope of reward as to be converted into sources of pleasure. But let us stop these reflections, and see what you should turn your attention to. Well then, after casting our mind about in search of the first object, it rests upon your

Grain Fields—Have you carefully examined these, at intervals throughout the season, to see whether any obstructions were in the water-furrows, calculated to impede the free passage of the water? If you have not, do it without any farther delay. Let not your examination be a superficial one—and from this until spring, make a personal inspection of them every two weeks, and wherever you find clods of earth, sticks or stones, which may have fallen in, have them removed, as there is nothing like letting your *wheat* and *rye* plants have a dry bed to repose in during winter. We feel assured that if proper attention were paid to keeping the drains open, much of the freezing out would be prevented.

Fire Wood—We feel it our duty to again call your attention to the prompt procurement of a full supply of fuel, to serve you not only through the winter and spring, but during the summer and fall. By doing so, you will study your interest, economise time, and not experience the mortification of having a part of your force diverted from field duties, to procure wood for the house in summer. The wood, when cut, should be hauled in without delay, and corded up near the house for use as wanted.

Winter Ploughing—As there are many intervals of weather through the winter, when the frost is sufficiently out of the ground to enable you to have your stiff clays, intended for spring culture, ploughed, let us advise you never to let such an interval pass without putting every plough that you can spare to work: and to *see*, that the ploughmen do their work as *deep* as the strength of your team will allow: don't be afraid of turning up the "*pizin*" of the subsoil.

Fencing and lumber for farm purposes—This is the season when you should get all your *posts*, *rails* and *other lumber* out, and we need scarce tell you, that after it is cut, it should be carted to the home enclosures, for the convenience of employing the hands in working it up during such wet days as they cannot be occupied in out-door work. From all such trees as may be felled for the purposes named, the bark should be stript off, as it will facilitate the seasoning of the timber, and prevent the ravages of the worm, by depriving them of a hiding place.

Fences—A rigid examination of the whole of your fences should be forthwith made, so that wherever *new* may be required that it be supplied, and whenever *repairs* may be necessary, that they may be timely made.

Fence Corners—Have all the bushes eradicated from your fence corners, as nothing bespeaks the neat and systematic farmer more than to see a clean line of fencing.

Gates and Bars—If every field on your farm has not been already provided with a good substantial gate, have them made between now and the opening of spring, so that you may banish every pair of bars from off your place; see that your gates have good fastenings, that they open freely and can be closed securely.

Sheds for Cattle—If you have already erected ample sheds to accommodate all your cattle, it will be of course superfluous for us to say any thing upon that head to you. But if you have not done so, let us then timely advise you to send a few hands into the woods to cut down the timber for their erection. A few days devoted to such work, and a few more to hauling it in and the erection of the sheds, will enable you to provide good dry quarters for your stock, a thing which every humane person will say should be done. In building your sheds, let them face the *south*, and their floors be somewhat higher than the yard, so as to preserve a dry surface.

Stables and Horses—Taking it for granted that you have good warm, dry stables, we shall not say any thing about their construction; but it may not be amiss to admonish you, of the necessity of having them daily cleaned out, so that your *horses* may be able to breathe pure air. Let your horses be provided with good beds of straw, that they may be refreshed by their slumbers. Stint them not in the quantity of straw for bedding, but recollect, that for every pound you give them for such purposes, they will return you *four*. Don't be content to tell your servants to attend to this duty, but *see* to it yourself. A daily visit to your stable, will tell well for your interest at the end of winter, in the improved condition of your horses. *See* that their troughs are cleansed twice a week, by being washed with *lie* made from wood ashes; or with lime water. *See* that they are salted twice a week. *See* that they receive half a pint of linseed meal twice a month, and, if possible to do so, save, for the purposes of manure, their liquid voidings.

Grain in the Straw—Get all that remains in this condition threshed out, and salt the straw as you pack it away.

Store Hogs and in-pig Sows—Let these be cared for; keep them warm and feed them regularly.

Milch Cows—As no man has a right to expect these animals to give either good or much milk, unless he feeds them well, we call upon you to see that in addition to *three good feeds* of hay or fodder, that your milch cows receive also due proportions of succulent food of some kind, and be sure to give them salt twice a week.

Oxen—Let your work oxen be comfortably accommodated with lodgings, and well fed, in order that they may be the better enabled to sustain themselves in their toils, and be sure to give them each a handful of salt twice in each week.

Sheep—Shelter and bed your sheep—feed them with hay and roots, or oats thrice, daily: salt them twice a week; keep a mixture of tar and salt in a trough where they can at all times get it; once a week throw them pine bows, and twice, daily, let them be watered.

Young Stock of all kinds—Although we are opposed to *stuffing* young animals, yet we are as clearly of opinion, that they ought to be generously treated in their early growth, and, therefore, we advise every owner, to see that they are sheltered from the weather, have good lodgings, and are well fed. The animal which may be stinted in his food, or exposed to the inclemencies of the winter, never attains full growth.

Implements and Tools.—These, of every kind, should undergo a searching inspection: all that need it should be thoroughly repaired, and placed under cover, where they will experience no injury from the weather, and where they may be had when wanted for use. By attention to this duty now, you will save yourself much time, and prevent vexation in spring.

Gearing of every kind.——If you have not already done so, have every thing of this kind hunted up, carefully repaired and greased. And, by the way, one of the best substances we have ever used on leather gearing, consists of 1 oz of Indian Rubber dissolved in a pint of *Seneca Oil.* Let the Indian rubber be cut into fine shreds, and after being dissolved in the oil, have the gearing well rubbed with it before a warm fire. This mixture, if rubbed on boots and shoes, will make them water proof, render the leather soft and pliable, and make the boots and shoes last as long again. We feel it due to the discoverer of the solvent, to say that it is Dr. G. B. Smith.

Composts.—Much valuable manure might be collected between this and spring, by collecting mould and leaves from the woods, and mixing it layer and layer about with the stable manure, or by mixing with each load of mould and leaves, one bushel of lime, and permitting it to remain in pie until spring. Any carts, horses, and hands, thus occupied, would be the most profitable employed on the farm.

We have perhaps, thrown out hints enough as to the work on the farm, and it may now be well to see whether any thing, and what, can be done

IN THE GANDEN.

We are aware that there are but few gardens in the country, where much can be done during this month, as without the necessary appendages of hot-beds and glass frames, but few of the earlier operations of gardening can be advantageously carried on before the opening of spring. But still, with a little outlay of money, and some pains, a very passable hot-bed may be constructed, without glass, which will answer a good purpose in the bringing forward *cabbage, lettuce* and other plants, for early spring setting out. The bed can be made in this way. Select a warm border *facing to the South*; then place two planks twelve inches wide, one after the other, against the fence, confine them with stakes, so that they will remain fast, then nail pieces of plank to either end. of the *width* you wish to make the bed, say 3 or 4 feet; then nail two other planks, in front, to these cross-pieces, so as to form a bed, and in order to strengthen the platform that is to be raised, nail another piece of board in the middle, where the four planks join together: then drive down three pieces of scantling, on short posts, in the backside of the bed, one at each corner, and one in the middle, so as to be 12 inches high; in front of the bed, and opposite each of these posts, drive down three others, which should be 18 inches or 2 feet high; then nail cross-pieces from post to post, and finish your bed frame by placing, or nailing on a plank roof the edge, of the roof to project over on both sides, so as to convey the water off the bed; then fill up your frame with 8 inches of stable manure and 4 inches of rich earth or mould, rake it well, sow your *early cabbage, lettuce, tomatoes, radishes, egg-plants, cauliflowers, smalt saladings and almost all other vegetables;* rake in the seed, and press it down with the back of your spade. Cover the front and sides of this bed with straw matting, or any old rug, every night, and keep it covered whenever the weather is bad, and you may grow as many plants in this way as you please, which will prove many weeks more forward than any you could grow in open culture in early spring. The matting, or covering, should be removed every good sunny day, but always put on again two or three hours before night. This is a very cheap manner of making a hot bed, and will answer every purpose of the more expensive ones with glasses—it is one which any farm hand can make, and may be constructed at the cost of a pound of nails, a hundred feet of any kind of plank, no matter how old, half a day's labor and the manure.

Gooseberry and currant bushes may now be pruned of the old and decayed wood, and thus, may so much time be saved in the spring.

Grape Vines.—In all the southern states, grape vines may now be pruned.

Stiff Beds.—If there be any stiff clayey beds in your garden, manure them freely; spade in the manure the full depth of the spade, and leave the bed, without raking to the action of the frost, which will not fail to improve its texture, by rendering it more friable. As soon in the spring as the frost is entirely out of the ground and the earth dried, rake such beds, then give them another *slight* dressing of manure, spade it in *half* a spat deep, rake well, and your beds will be in the best condition for fruitful cultivation.

Garden Tools of every kind must be looked up, if they need it, repaired, and put away.

We have thus endeavored to furnish you with a *remembrancer*, but have doubtless omitted many things—these you must supply by personal inspection of your entire farm and garden—trust to no one to do any thing for you that you can, and ought to do yourself: *use your own eyes freely*; if they be a sharp-sighted pair, be assured that they are worth more to you than two pair of hands, and that, if you faithfully use them, you will be able to beget vigilance in all around you, and have the satisfaction to know that your own good example has been to your interests, what the shield and the buckler were to the warriors of old—their protection and defence.

THE ROSE BUG ON THE GRAPE—Dr. R. T. Underhill, of N. York, whose advertisement has been for several weeks published in our paper, gives the following, in the Albany Cultivator, as a remedy against injury from the ravages of the rose-bug:

"I have cultivated the grape, particularly the Isabella and Catawba, on a pretty extensive scale, for a number of years, at my vineyards on "Croton Point," near Sing Sing, N.Y.; and among the difficulties and enemies with which I have had to contend, and which experience I may add, has enabled me to overcome, the rose bug has not been the least. Several years since, when my vineyards were smaller than they are at present, I found the rose bug a formidable enemy. They appeared on the vines when they were in blossom, or just as the blossoms were falling off and the young grapes forming, and devoured them with the greatest avidity. This feast continued from 8 to 12 days, or till the cherries on the trees in the vicinity began to ripen, when they, with one accord, flew to them for a change of diet, I presume, or for some other cause. I was quite familiar with the habits of the caterpillar, and had been in the practice of clearing them from my orchards in the spring, before they had scarcely destroyed a leaf. This I did not consider a great or difficult matter; for they were enveloped in a web early in the morning, and one man in a few days, was able to clear many hundred trees, by twisting them off web and all, with a bushed pole, and carefully placing them *under his foot.*

The rose bug, however, did not, like the caterpillar, make their appearance in clusters or in webs, but in small numbers at first, and scattered through the vineyards, increasing rapidly every day. Though taken from the vines on the trellis every morning, they continued to multiply till the eighth or twelfth day, when they suddenly left for the cherry trees, as above stated. I was at a loss, at first, to know where they came from, till at length I discovered the ground perforated with numerous holes, thro' which they made their way to the surface.

I observed when they first appeared on the vines, they were so feeble as to be unable to fly even for a few yards. Having surmounted all other difficulties, I was determined not to be defeated in the vineyard cultivation of the grape, by this insect, and consequently resorted to the following means for their destruction. I directed my men to take each a cup, with a little water in it; and go through the vineyards every morning, removing every bug from the vines; and this was done quite rapidly by passing the cup under the leaf and merely touching it, when the bugs instantly dropped, and were received in the cup containing the water. When the cup was full, they were soon destroyed by pressing the foot upon them on a hard surface. After all of them had been taken off, on the following morning there were ten on the vines were we had found but one; and on the following morning, after having been removed as before, there were one hundred where there were but ten before; and so on. I was not discouraged, however, and directed my men to persevere in the work of destruction, and we should thus, perhaps, prevent the formation of another progeny for the next season; for it is very easily shown that they do not migrate to any great distance; and by thus destroying the present race, I am convinced that we ensure ourselves from their further depredations to any injurious extent. When a person of some energy has cleared them from his vineyard or garden, he is pretty certain to enjoy the benefit of his labor another season as well as the present, though he may have a few from his less resolute neighbor. Pursuing the course I have mentioned, I very soon lessened the rose-bug so much that they gave me very little trouble.

I also tried plowing my vineyards just before winter set in, so as to expose to the weather the insect in the larva state, which will certainly destroy all the young tribe, that have not descended below the reach of the plow. For two years past the number has been so small, that I have omitted this process for their destruction."

Speculation in Cloverseed—A letter was published in the daily papers some days ago, purporting to be written at Pittsburg, in which it was stated that the crop of Cloverseed was very short in the West, and the quality inferior. It was evidently a trick of some speculator, who having more of the article on hand than was likely to be profitable, resorted to this device to raise the price of it. The letter was copied into the Pittsburg American, the editor of which appends to it the following contradiction of its statements:

"We have made inquiries of the dealers in that article here, and of the Commission Merchants of the city. The result induces us to say, that there is no truth in the above story, but that it must have been manufactured for purposes of particular speculation, probably by some person in New York, or conceived in absolute error. So far as we can learn, the crop has been large, and the quality good, but the almost total absence of demand has kept it from the market—the price being nominally at $3 with no buyers. As for Tennessee, we can hear of no orders as yet received, or even expected, that would justify a report in a market article."

The following facts illustrate with force the great superiority of a small farm well worked, over a large one indifferently tilled. Yet, this is one of the most difficult lessons which a farmer is required to learn:

FARMING IN MASSACHUSETTS.—Mr. Jesse Trull, Jr., of Andover, on a farm of 45 acres has expended in the last three years $1,685 for manure, besides using all which could be made on the farm, and 50 loads of night soils, which cost but but little except the trouble and labor of carting. Besides this large sum for manure, he has paid in the same time $1,500 for labor, $600 for wagons and tools, and his family expenses estimated at $500 a year. He also expended in a cellar for his barn, and other improvements enough to make up $6,000 in the three years. All this has been returned to him by the sale of products of the farm, and the farm he has in the meantime increased in value full 33 per cent. notwithstauding the state of the times.

He has the present year among other products, one acre of blood beets which is supposed will yield 300 bushels; an acre and a half of cabbages planted at the rate of 500 hills to an acre, which he calculates will give 6,000 marketable heads, worth $40 a thousand; 5 acres of potatoes, averaging 250 bushels the acre; 3 1-2 acres of melons, squashes, and cucumbers; 3 acres of peas; 2 acres of beans; several acres of corn; 2 acres oats, yielding 40 bushels to the acre; and 12 acres mowing from which he has taken 20 tons English hay. He keeps but 1 cow, 2 horses, 1 yoke of oxen, and hogs enough to work over his green refuse stuff and make his own pork.

He regards his late crops as the most profitable, and says that all early stuff is much less profitable, than it would be, were not our markets supplied from the South some weeks before we can possibly raise the articles; and we can take the first price for nothing.—*Newburyport Herald.*

ALTERING MALE QUADRUPEDS—A correspondent of the Cultivator says—After commencing operation as a farmer, I observed with regret, the barbarous method of operating on domestic animals, particularly upon swine, and in filling the bag with salt or ashes; but those who were accustomed to this method could not be persuaded to adopt any other practice. The salt and ashes applied on such occasions act as a styptic and prevent bleeding, but they excite inflammation and endanger the life of the animal. I have noticed the agony and uneasiness of pigs after such applications, and have recommended milder ones. In 1840 I lost a large shoat in three days after the operation, and came near losing a steer by bleeding from the cord. The method which I consider preferable is exhibited in the following instances:

Sept. 15th, 1842. Altered a large Berkshire boar 3½ years old, one that no person would undertake to castrate, lest he should die after the operation. I found a man, however, who was willing to act under my directions; he used a sharp knife and made a smooth cut, and after laying bare the testis, I applied a ligature on the cord, as a surgeon would to a bleeding artery, and then cut the cord below the ligature; the second testis was removed in the same manner, and the wound dressed with a mixture of

tar and grease. The operation was soon performed, there was no bleeding from the wound, and the animal seemed to mind it no more than a kick; he eat his allowance daily afterwards, and never fell off in flesh from the operation, and is now (Nov.) a fat hog.

On the same day nine boar pigs which had been weaned some time, were altered without tying the cord, and the wounds rubbed with the mixture of tar and grease. They never lost a meal nor appeared to suffer pain or inconvenience from the operation, and all speedily recovered.

Oct. 7th, 1842. Altered a two year old Galway bull by the same method. Having prepared a waxed thread, the cord was tied, and the testes removed as in case of the boar, with the loss of only a few drops of blood in cutting through the skin. The wound was rubbed with the tar and grease, and the animal after being kept in the barnyard a few nights was suffered to run in the field. The ligature comes away by the sloughing or rotting of the lower end of the cord, and then the wound heals.

On the same day another stout Berkshire boar, 1 year old, was operated upon in the same manner, without the loss of blood or flesh. He recovered rapidly, and is now (Nov. 9th) in a fair way to make a heavy porker.

ARRIVAL OF THE BRITANNIA.

The Britannia arrived in Boston on Wednesday afternoon, by which London papers to the 3d inst. and Liverpool to the 4th are received.

The intelligence received by this arrival is of very great importance. The British arms, both in India and China, have been most brilliantly successful, and a treaty of peace has actually been signed between Great Britain and China, highly honorable and advantageous to the former. In India, the British commanders had gained a series of battles, and to all appearance, placed the Affghans hors du combat.

[Per Steamer Britannia.]

Liverpool Cotton Market.—By the following review from Wilmer's News Letter it will be seen a decided improvement had taken place in Cotton.

Review for the week ending Nov. 25.

Cotton was in very limited demand and a downward tendency in the prices of all descriptions was exhibited until Tuesday, when the receipt of the India and China news communicated an immediate impulse to the market, which has since continued, a large business having been daily done at gradually improving prices. The rates current to day are ¼d a ⅜d higher than those of Friday last in all qualities of Am. below fair, and 1-8a¼d per lb in the better classes, 1 8d in Maranham and ¼d in Surat very generally. Pernam, Bahia and Egyptian have undergone no change. There were offered to day by public auction 1130 Sea Island and 550 stained do—of the former 740 were sold at 7¾d to 14¾d, and of the latter 480 at 3¾d to 7d, the prices paid for both descriptions were for the most part about ¼d per lb higher than those of private business. The sales of the week amount to 47,740 bales, of which 9000 American and 6000 Surat have been taken on speculation. The prices declared to-day by the Committee of Brokers for fair American are as follows, viz—Bowed 5 2-3d Mobile 5 2-3, and Orleans 5¼d per lb.

For the week ending December 2.

We are sure the sales of the past week have again been large, amounting to 47,050 bales, of which 13,600 American and 5,500 Surat have been taken on speculation and 100 Surat for export. The market has been rather quieter since Wednesday than it was in the early part of the week, but we cannot make any positive decline from the prices current on Friday last—Egptian have for a few days past been in better demand, and must be considered a shade dearer. The Committee's quotations for fair Cotton remain as last week, viz—Bowed 5 3-8d, Mobile 5 3-8d, and Orleans 5¼d per lb.

London Tobacco Market, Dec 1.—Virginia Leaf—Much business has been done during the last fourteen days—principally for retail at from 4¼d to 5¾d, for very fine picked leaf 5¾d to 6¼d asked, and holders very firm upon these prices, which are fully ¾d to 1¼d higher than in February last.

Stripped Leaf—Every parcel as it came from the ship is directly sold at full prices; very few to be got under 6d, for good strong leaf 6¼d to 7d, fine 7¼d to 8d.

Kentucky Leaf—Not much doing; the stock being very large, about 200 hhds of good ordinary leaf sold at 3d a 3¼d, common 2¼d a 2¾d, very fine 4d a 4¾d.

Stript Leaf—The Home trade only buy as their wants require, and then at lower rates, good 4¼d a 5d, fine 5¼ to 6¼d, for common no sale.

Liverpool, Nov. 22—The transactions since Tuesday last, in both foreign wheat and flour, have been very limited, and a reduction upon our last quotations of 1d to 2d per bushel on the former, and 6d per bbl on the latter, has been submitted to.

Nov. 29—The satisfactory news received from China has imparted more firmness to our trade, and though the demand for foreign Wheat has been only moderate the prices of this day week have been fully supported.

Dec. 2—This morning there was a fair retail demand for foreign Wheat at the full currency of Tuesday, a few parcels were also taken on speculation. Flour was dull, and Irish offering rather lower.

BALTIMORE MARKET.

Hogs—About 2500 head of Live Hogs have reached here this week from Ohio and Western Pennsylvania. The packers generally refused to purchase at the prices asked which are $2,37½ to $3,50 per 100 lbs. There are now fully 1800 head in market unsold. The prices now asked show a slight decline on last week's rates, but packers demand further reductions.

Killed Pork.—The sales of prime family pork from store this week have ruled at about $4 per 100 lbs. for small Hogs. Heavier descriptions have been sold at prices ranging from $3 to $3.75 as in quality.

Cloverseed.—Market quiet, and prices without change. We quote fair to prime parcels at $3,50 to $4, from stores.

Molasses.—A lot of 55 hhds, new crop New Orleans was sold at auction on Tuesday at 23¼ cents per gallon. Small sales of Porto Rico in hhds, at 19a20 cents.

Sugars.—At auction 200 hhds new crop New Orleans were sold at $6a6,10.

Tobacco.—The market this week has been quite dull, and although we do not alter quotations for Maryland, it is necessary to state that in most cases a slight decline has to be submitted to before sales can be effected of common and middling sorts, which compose by far the largest portion of the receipts. Good and fine descriptions sell readily at former rates. We quote inferior and common Maryland $2,50a3,50; middling to good $4a6; good $6,50a8; and fine $8a12. The demand for Ground Leaf has fallen off greatly. The good qualities only are wanted. We quote common Ground Leaf $3,50a4,50; Middling $4.50a5; and good $6a7. Ohio Tobacco is very dull. We quote nominally as follows:—Common to middling $3,-50a4,50; good $5a6; fine red and wrappery $6,50a10; fine yellow $7,50a10; and extra wrappery $11a13. The inspections comprise 556 hhds. Maryland; 89 hhds. Ohio; 39 hhds. Kentucky; 4 hhds. Missouri; and 3 hhds. Virginia—total 671 hhds.

Cattle.—The supply of Beef Cattle at the scales this morning was very light, embracing only 175 head. The demand was not active, and only about 90 were sold at prices ranging from $2 to $2,75 per 100 lbs. on the hoof which is equal to $4a$5,50 net as in quality. These prices show an advance on last week's rates.

Hogs.—Some sales of live Hogs have been made to packers to-day at $3,12½ per 100 lbs. These sales show a decline since last week.

Flour.—There is very little demand for Howard street Flour, and holders continue to ask $4,12½ for good standard brands. One sale is reported to us to-day at $4. The wagon price is not settled.

There is nothing doing in City Mills Flour. Some holders ask $4,12½, but others are not willing to sell at that rate.

Grain.—There has been very little Wheat at market to-day. We quote as before at 85 to 90 cts. for good to prime Md. reds, and at 50 to 80 cts. for inferior to fair. We note sales of white Corn to-day at 41a42 cts. and of yellow at 42a 43 cts. Sales of Oats at 22a23 cts.

Provisions.—All descriptions of provisions are dull and prices merely nominal. Holders continue to ask the following prices, viz: New Baltimore packed Mess Beef $8,50; No. 1 at $6a$7; Prime $4,50a$5; Old No 1 Pork $7a$7,25; and Prime $6,50a$7.—There are some lots of new Bacon in market, and Baltimore cured Hams are held at 8¼a9 cts., and Shoulders and Sides of the same description at 6 cents. We quote No. 1 Lard, in kegs, at 7¼ cts. There is no change in the price of Butter, and very little demand. Glades No. 1 is held at 12½ a 15 cts.; No. 2 at 9a12½ cts. and No. 3 at 6a8 cts.

DEVON STOCK FOR SALE—A GREAT BARGAIN.

A gentleman near this city being overstocked, and not wishing to winter so many cattle as he has now on hand, offers for sale the following blooded animals at the prices annexed—

1 full blooded Devon Bull, 13 months old; 2 full bred Devon Heifers, one 13, the other 20 months old, all represented as handsome well formed animals, and in fine order—The three will be sold for $100. Apply at this office to d 21 S SANDS

FOR SALE—JACK SLICK—BERKSHIRE BOAR,

Sired by that celebrated imported boar "Sam Slick," of Mr. Bement, of Albany, now 2 years old, and will vie with any for size and usefulness. Apply to de 21 S. SANDS.

BLOODED STOCK FOR SALE.

The subscriber having more stock than he wishes to retain on his farm, will dispose of a number of them at the following moderate prices if immediate application be made.

SNOW DROP, Durham heifer, white, 27 mos. old, now in calf by my premium bull Mohican—price $25.

STRAWBERRY, Durham haifer, 24 months old; sire Defiance 3d, in calf by Mohican—price $45.

CHERRY, half Durham, 20 months old, sire Defiance 3d, out of my celebrated butter cow—price $25.

CLARA, 7-8 Durham 6 yrs. old, in calf by Mohican; this cow has a cut teat, and on that account will be sold for $30; her last calf brought $40.

LILY, Holstein and Devon, 3 years old, in calf by Mohican; her gr. dam was imported by Col. Tenant, and was one of the most celebrated milkers of her day—price 40 dolls.

SIDNEY, full bred Devon, 3 years old last spring, in calf by Mohican; her first calf sold at 4 weeks old for 25 dolls. Price 50.

PEACH BLOSSOM, full bred Devon, 3 years old last spring, in calf by Mohican: price 50 dols.

MOHICAN, premium bull, half Durham and Devon, sire Defiance 3d, 18 months old; Defiance is out of Mr. Whitaker's stock, and was sold at 2½ years old for 225 dols. Price 40 dols.

LUCY, half Durham and half Devon heifer, 20 months old, sire Defiance 3d; this heifer took the second premium at Baltimore Co. Cattle Show in October last. Price 40 dols.

ROSE BUD, full bred Durham, sire Defiance 3d, 9 mo. old, $40.

Also two pair premium Berkshire Pigs yet remaining on hand, price 10 dols. per pair. J. B. H. FULTON.

Orders left with Mr. S. SANDS, will be attended to. d 21 3t

AGRICULTURAL MACHINERY,

Manufactured and for sale by A. G. MOTT & CO.

South east corner of Ensor and Forest sts. near the Bel-air market, Old Town, Baltimore,

Being the only agents for this state, are still manufacturing WILEY'S PATENT DOUBLE POINTED COMPOSITION CAPT PLOUGH, which was so highly approved of at the recent Fair at Ellicott's Mills, and to which was awarded the palm of excellence at the Govanstown meeting over the $100 Premium Plough, Prouty's of Philadelphia, and Davis' of Baltimore, and which took the premium for several years at the Chester Co. Pa. fair—This plough is so constructed as to turn either end of the point when one wears dull—it is made of composition metal, warranted to stand stony or rocky land as well as steel wrought shares—in the wear of the mould board there is a piece of casting screwed on; by renewing this piece of metal, at the small expense of 25 or 50 cts. the mould board or plough will last as long as a half dozen of the ordinary ploughs. They are the most economical plough in use—We are told by numbers of the most eminent farmers in the state that they save the expense of $10 a year in each plough. Every farmer who has an eye to his own interest will do well by calling and examining for himself. We always keep on hand a supply of Ploughs and composition Castings—Price of a 1-horse Plough $5; for 2 or more horses, $10.

We also make to order other Ploughs of various kinds.

MOTT'S IMPROVED LARGE WHEAT FAN, which was so highly approved of at the recent Fair at Ellicott's Mills and at Govanstown, as good an article as there is in this country—prices from 22 to $25.

A CORN SHELLER that will shell as fast as two men will throw in, and leave scarcely a grain on the cob nor break a cob, by manual power; price $17.

CULTIVATORS with patent teeth, one of the best articles for the purpose in use, for cotton, corn and tobacco price $4, extra set of teeth 1.

HARROWS of 3 kinds, from 7 to $12.

GRAIN CRADLES of the best kind, $4.

HARVEST TOOLS, &c.

Thankful for past favors we shall endeavor to merit a continuance of the same. ja 26 tf

MILLWRIGHTING, PATTERN & MACHINE MAKING

By thesubscriber, York, near Light st. Baltimore, who is prepared to execute orders in the above branches of business at the shortest notice, and warrants all mills, &c. planned and executed by him to operate well.

Murray's Corn and Cob Crushers for hand power	$25
Do. by horse power, from 6 to 12 bushels per hour,	35to40
Corn Shellers, shelling from 30 to 300 bushels an hour,	15to75
Portable and Stationary Horse Powers	75to150
Self sharpening hand Mills, a superior article,	12 to 20
Cylinder Straw and Oat cutters, 2 knives,	20a35
Mill, carry log, and other Screws, 2 small Steam Engines 3 to 4 horse power. Any other machines built to order.	

Patent rights for sale for the Endless Carriage for gang Saw Mills, a good invention.

☞Orders for crushers can be left with any of the following agents: Thos. Denny, Seedsman, Baltimore; J. F Callan, Washington, D. C.; Calvin Wing, Norfolk; S. Sands, Farmer office; or the subscriber, JAS. MURRAY, Millwright, Baltimore.

may 28 1y

CORN SHELLERS, CRUSHERS, STRAW CUTTERS, &c. &c.

☞ *Prices reduced in proportion to the present rate of labour and materials.*☜

The *subscribers* offer for Sale, *Goldsborough's Corn Sheller* and *Husking Machine*,—warranted to shell or husk and shell 700 bushels of Corn per day by the power of two Horses.

Baldwin's Corn Sheller with *blower* attached.—This machine with the power of two horses will shell and clean ready for market 400 bushels of corn per day.

Baldwin's Corn & Cob Crusher,—warranted to grind 25 or 30 bushels of Corn & Cob per hour, and put in fine order for feeding stock. This is the most durable, simple in construction, and most powerful of any Crusher made in this Country, and best adapted for extensive farming establishments. The power of two horses is required to drive it.

Straw Cutters, Cylindrical Improved—There are four sizes of these machines, which combine all the late impravements;—400 to 2000 bushels of hay, straw, cornstalks, &c. can be cut by them per day. Also, common Treadle, Evans' patent, and several other kinds STRAW CUTTERS, at low prices.

IN STORE,

Horse Powers, 2 sizes	Harrows, 5 kinds
Threshing Machines, do	Rollers and Drill Machines
Vegetable Cutters	Yankee Ox Yokes
Fanning Mills, 2 sizes	Harvest Tools, all kinds
Churns, 3 sizes	Post hole Augurs
Lime Spreaders	PLOUGHS, 25 sorts, embracing
Grindstones, hung on friction rollers	the Subsoil, and several other kinds of late introduction

Garden and Field SEEDS, a large and general assortment

TREES and PLANTS do do

CATALOGUES of the above furnished gratis, giving prices and description of each machine—also directions for planting seeds, trees, &c.

R. SINCLAIR, jr. and CO.

no 30 Manufacturers & Seedsmen, 60 Light st.

HUSSEY'S REAPING MACHINE.

Farmers are respectfully requested to send their orders as soon as they shall have decided on procuring machines to cut the next year's crop: by doing so, they will enable the subscriber to make preparations early in year with confidence, so that none may be disappointed at harvest time, as has been the case for several years past by delaying to apply for them in season. His former practice will be steadily adhered to of making no more machines than are ordered, lest a failure of the next years crop should leave a large number on his hands, unsold, which his circumstances will not allow. It is hoped that the great success which has attended the machines made for the last harvest will remove every doubt of their great value. Several persons have cut as high as 20 acres in a day with the last improved machines, while one gentleman with one of the old machines cut his entire crop of 72 acres in less than five days, without having a cradle in the field.

The greatest objection ever made to the machine was its heavy bearing on the shaft horse; this has been entirely removed by adding a pair of forward wheels to support the front of the machine, and a driver's seat at an extra expense of 20 dollars.

The subscriber's Corn & Cob crusher which obtained the first premium over several competitors at the late Fair of the N. York State Agricultural Society held at Albany, N. Y. and is so highly recommended in the public prints, by farmers who have used them, will be kept constantly on hand for sale.

no 9 OBED HUSSEY

BENTLEY'S AGRICLTURAL STEAM GENERATOR

MANUFACTURED BY BENTLEY, RANDALL & Co.,

Manufacturers of *Bentley's Convoluted Steam Boilers*, Baltimore, Md. for steaming Corn Stalks, Hay, Potatoes, Boiling water, &c It is also highly recommended to Tanners for steaming Leaches, also for various manufacturing and mechanical purposes, where steam or large quantities of hot water is required. This article is made wholly of iron, and was got up expressly to meet the wants of the Agricultural community, and it is confidently believed that for simplicity, durability, economy in money, fuel, time, and room combined its equal has not been offered to the public. It possesses all the pinciples of the most approved Tubular Locomotive Boilers, for saving of fuel, while the construction is such that one of equal size, strength and durability that has heretofore cost $100, or more, is now offered at $45. It is operated equally well with Anthracite coal as with wood, and can be removed by two persons at pleasure.—Prices No. 1 $45, considered of capacity enough for ordinary Farm purposes; No. 2 $60, No. 3 $75.

BENTLEY, RANDALL & Co.

McCausland's Brewery, Holliday, st. near Pleasant.

We have the liberty of referring to the following gentlemen, viz:—David Barnum, Esq City Hotel; Captain Jackson, warden of the Maryland Penitentiary, and Doct. Robt Dorsey of Edw., where they can be seen in operation.

Agents, J. F. Callan, Esq. Washington City; Capt. John Brooks, Upper Marlboro', Prince Georges' Co. Md. where samples can be seen. For numerous testimonials in favor of the above call on the manufacturers or their agents.

N. B. B. R. & Co., are also agents for Murray's Corn and Cob Crushers. Balto. Md., Dec. 1842.

de. 7

LIME—LIME.

The subscriber is prepared to furnish any quantity of Oyster Shell or Stone Lime of a very superior quality at short notice at their Kilns at Spring Garden, near the foot of Eutaw street, Balmore, and upon as good terms as can be had at any other establishment in the State.

He invites the attention of farmers and those interested in the use of the article, and would be pleased to communicate any information either verbally by or letter. The Kilns being situated immediately upon the water, vessels can be loaded very expeditiously. N.B. Wood received in payment at market price.

ap. 22 3m E. J. COOPER.

SAXONY EWES.

A flock of 50 or 60 Saxony Ewes, of the very finest quality, bred by one of the most eminent breeders in Maryland, (and whose name alone is a sufficient guarentee of his stock being the best,) is offered for sale, in lots or to suit purchasers, at $4 per head. Apply t,

Nov. 23. SAMUEL SANDS.

AGRICULTURAL MACHINERY & IMPLEMENTS.

The subscriber begs leave to assure the public that he is prepared to execute orders for any of his agricultural or other machinery or implements with promptness. His machinery is so well known that it is unnecessary to describe the varions kinds, but merely annex names and prices:

Portable Saw Mill with 12 ft. carriage, and 24 ft. ways and 4 ft. saw,	$300
Extra saws for shingles, with 3 pair of head blocks,	125
Post Morticing Auger,	15
Bands,	10
Horse Power of great strength,	200
Corn and Cob Crusher, wt. 600 lb.	65
Thrashing Machine, wt. 300 lb.	75
Corn Planter, wt. 100 lb.	25
Thrashing Machine, wt. 600 lb.	150
Grist Mill, 2½ ft. cologne stones,	150
Do. 3 ft. do.	175
Belts for the same,	15
Post Auger, wt. 15 lbs.	5
Tobacco Press complete, portable,	85
Portable Steam Engine, with portable Saw Mill and cutting off Saw,	3500
Large Sawing and Planing Machine with cutting off saw, or cross cutting for arge establishments,	1100
If made of iron,	3000
Large Boring and Morticing machine for large establishments	150
Tenoning Machine	200
Vertical Saw	125
Small Morticing Machine, suitable for carpenters,	25

GEORGE PAGE,

West Baltimortreet, Baltimore, Md.

SOUTH DOWN SHEEP FOR SALE.

Two Rams and two Ewes of the purest South Down breed of Sheep. These Sheep were brought from England to Maryland in the autumn of 1840, by Dr. Macaulay, and the following testimonilas will show the pedigree and exceeding purity of the blood.

The South Down Sheep were purchased for Dr. Macaulay of Baltimore, at the request of James Alexander Esq. of Somer Hill, England, by his agent, Mr. Thomas Waters of Stratford, Subcastle, Salisbury. They were part of the flock of Mr. Northeast, of Tedworth Wiltshire. Mr. Waters in a letter to Dr. Macaulay, says, "I have much pleasure in informing you that I have selected a Ram for you which I consider of the purest South Down breed, and have this morning received a letter, from the same person I bought the Ram of, to say, he has selected six Ewes for me, from his own stock, also,—he is the first breeder we have in this part of the country, and probably in any other part of England, of the purest South Down Blood. The price of the Ram No. 16, is thirty guineas, and the six Ewes forty five shillings each, which I consider moderate."

The following is Mr. Northeast's letter to Mr. Waters, on the Pedigree of the Ram and Ewes purchased from him.

Tedworth, Sept. 14th, 1840.

My dear Sir.—I have this morning looked out for you six Ewes, which I think match well, and will please you. Four of them are six tooths and two are two tooths, and the Ram No. 16, will look like one of the family. No. 16 was bred from one of my best Ewes, and the Ewe having two, bred both up to weaning time. He was got by Mr. Ellman's No. 15, which was let this year by auction at sixty three guineas, and is considered the best sheep in England; he is now hired by Lord Huntingfield and Mr. Crips of Gedgrove.

For the last few years I have averaged my Ewes cull and best at 41s. 6d. that is, best at 42 and rest at 40s. each, and I trust you will not think I overcharge you by naming 45s. each, for the 6 best, as I shall expect to get about 42 for those left.

I remain, my dear sir, yours very truly,

THOMAS B. NORTHEAST.

Mr. Thomas Waters,

Stratford Sub-castle.

The Rams or Ewes will be sold seperate or together, at the wish of the purchasser. For a view of the sheep, or terms, apply to JACOB WOLFF Esq. at this farm, adjoining Randalls town near the Liberty Road. Sep. 28

ISABELLA GRAPE VINES,

Of proper age for forming vineyards, propagated from and containing all the good qualities which the most improved cultivation for over ten years has conferred on the vineyards at Croton Point, near Sing Sing, N. Y. are now offered to the public. Those who may purchase will receive such instructions as will enable them to cultivate the Grape with entire success, [provided their locality is not too far North] All communications, post paid, addressed to R. T. Underhill, M. D., No. 400 Broadway, New York, will receive attention. He feels quite confident that he has so far ameliorated the character and habits of the grapevines in his vineyards and nurseries, by improved cultivation, pruning, &c., that they will generally ripen well and produce good fruit when planted in most of the Northern, all the Western, Middle and Southern States.

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